

REMARKS/ARGUMENTS

Claims 53-73 are pending. The specification has been revised to correct a typographical error. Claims 53-73 find support as follows. Support for independent Claim 53 is found in the specification on page 3, lines 7-et seq. SEQ ID NO: 8 finds descriptive support in Example 4 on page 18 of the specification. This sequence is the same sequence as SEQ ID NO: 6, except at residues 217 and 290. The amino acid residues at these positions are Ala and Glu, respectively, as described in the specification on page 18, second paragraph of Example 4.

Support for the limitation that the residue at position 490 is an amino acid other than glutamic acid is found in the specification on page 6, third line from page bottom.

Support for the limitation pertaining to a concentration of 0.1% benzalkonium chloride which appears in Claim 53 is found in Example 1, where 5 microliters of 0.4% benzalkonium chloride is added to the reaction solution to a final volume of 200 microliters. The final concentration of surfactant is 0.1% and the results are shown in Fig. 2.

Support for Claims 54-60 tracks that for Claim 53.

Claims 61 and 62, which refer to SEQ ID NOS: 3 and 4 find support in the specification on page 16. Claims 63-64 which refer to SEQ ID NOS: 5 and 6 find support in the specification on page 17. The vectors, host cells, and methods of Claims 65-73 find support in original Claims 7, 8 and 9, respectively, and as above, for the corresponding nucleic acid sequences they contain. Accordingly, the Applicants do not believe that any new matter has been added.

The Applicants thank Examiner Slobodyanski for the courteous and helpful discussion of January 13, 2004. It was suggested that the rejections of record might be addressed by directing the claims to specific variants of the Heike firefly luciferase sequence

disclosed in the specification. As discussed, the claims have been amended to claim these mutants. Favorable consideration and allowance of this application is respectfully requested.

#### Specification

The specification was objected to for various informalities or inconsistencies. The term on page 6 has been corrected. The Applicants submit that page 5 and Table I are not necessarily inconsistent, as a solution of 0.4% surfactant may be added to an assay to achieve a final surfactant concentration of 0.1% (as is done in Example 1).

#### Rejection—35 U.S.C. § 112, first paragraph

Claims 34-39, 41 and 43-52 were rejected under 35 U.S.C. § 112, first paragraph, as lacking adequate description. This rejection is moot in view of the cancellation of these claims.

#### Rejection—35 U.S.C. § 112, first paragraph

Claims 34, 44 and 46-52 were rejected under 35 U.S.C. § 112, first paragraph, as lacking adequate description. This rejection is moot in view of the cancellation of these claims.

#### Rejection—35 U.S.C. § 112, first paragraph

Claims 34-39, 44 and 46-52 were rejected under 35 U.S.C. § 112, first paragraph, as lacking enablement for mutants other than those of SEQ ID NOS: 4 and 6. This rejection is moot in view of the cancellation of these claims.

Rejection—35 U.S.C. § 112, second paragraph

Claims 34-39, 41, 43, 44 and 46-52 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. This rejection is moot in view of the cancellation of these claims.

Allowable Subject Matter

The Applicants thank Examiner Slobodyanski for indicating that the subject matter of Claims 40, 42 and 45 would be allowable.

CONCLUSION

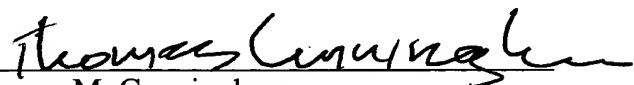
In view of the above amendments and remarks, the Applicants respectfully submit that this application is now in condition for allowance. Early notification to that effect is earnestly solicited.

Respectfully submitted,

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